Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An optically pumped radiation-emitting semiconductor device having a semiconductor body, the semiconductor body comprising: ~~which includes at least one pump radiation source (20) and~~

a surface-emitting quantum well structure; ~~(11),~~

a pump radiation source constructed for generating a pump radiation for optically pumping the quantum well structure, the pump radiation source [[(20)]] and the quantum well structure [[(11)]] being in monolithically integrated form; [[,]] ~~and the pump radiation source (20) generating pump radiation (2) for optically pumping the quantum well structure (11),~~

wherein a recess [[(10)]] for introducing the pump radiation [[(2)]] into the quantum well structure ~~(11)~~ is formed in the semiconductor body between the pump radiation source [[(20)]] and the quantum well structure [[(11)]],

wherein the pump radiation source is a pump laser comprising a resonator, and

wherein the quantum well structure is arranged within the resonator of the pump radiation source.

2. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the recess [[(10)]] is in a trench form and runs obliquely or perpendicular with respect to a direction of propagation of the pump radiation [[(2)]].

3. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the recess [[(10)]] has a first side face [[(26)]] facing the pump radiation source [[(20)]] and an opposite, second side face [[(27)]] facing the quantum well structure [[(11)]], the pump radiation [[(2)]] entering the recess [[(10)]] through the first side face [[(26)]] and then entering the quantum well structure [[(11)]] through the second side face [[(27)]].

4. (Currently Amended) The semiconductor device as claimed in claim 3, wherein the second side face [[(27)]] is parallel to the first side face [[(26)]].

5. (Currently Amended) The semiconductor device as claimed in claim 3, wherein at least one of the first ~~and/or~~ and the second side ~~face (26, 27)~~ faces includes an angle equal to [[the]] a Brewster angle with a direction of propagation of the pump radiation ~~(2), in particular with a main direction of emission of the pump radiation source (20)~~.

6. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the recess [[(10)]] is filled with a dielectric or a semiconductor material.

7. (Currently Amended) The semiconductor device as claimed in claim [[6]] 1, wherein the recess [[(10)]] is filled with a material which has a refractive index substantially equal to [[the]] a refractive index of the pump radiation source [[(2)]], [[the]] a refractive index of the quantum well structure [[(11)]] or [[the]] a geometric mean of the latter two refractive indices.

8. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the semiconductor device comprises a vertical emitter with a radiation-generating region formed by the quantum well structure [[(11)]].

9. (Currently Amended) The semiconductor device as claimed in claim 8, wherein the vertical emitter is a vertically emitting laser~~, in particular a VCSEL or a disc laser~~.

Claim 10 (Cancelled).

11. (Currently Amended) The semiconductor device as claimed in claim [[10]] 1, wherein the pump laser is an edge-emitting laser.

12. (Currently Amended) The semiconductor device as claimed in claim [[10]] 1, wherein the pump laser is a ring laser.

Claim 13 (Cancelled).

14. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the pump radiation [[(2)]] is introduced into the quantum well structure ~~(11) in the~~ in a lateral direction.

15. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the pump radiation source [[(20)]] and the surface-emitting quantum well structure [[(11)]] are formed from different semiconductor layer sequences.

16. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the pump radiation source [[(20)]] and the surface-emitting quantum well structure [[(11)]] are formed epitaxially and in succession.

17. (Currently Amended) The semiconductor device as claimed in claim 1, wherein the recess [[(10)]] is arranged in a grow-in region between the pump radiation source [[(20)]] and the surface-emitting quantum well structure [[(11)]].

18. (Currently Amended) The semiconductor device as claimed in claim 1, wherein ~~in that~~ the pump radiation source [[(20)]] has at least one waveguide layer ~~(23, 24)~~.

19. (Currently Amended) A method for fabricating an optically pumped semiconductor device having a semiconductor body which includes a surface-emitting quantum well structure [[(11)]] and at least one pump radiation source [[(20)]] which generates pump radiation [[(2)]] for optically pumping the quantum well structure [[(11)]], the pump radiation source [[(2)]] and the quantum well structure [[(11)]] being monolithically integrated, the method comprising the steps of:

a) providing a substrate [[(1)]],

b) epitaxially growing a plurality of semiconductor layers ~~on to~~ onto the substrate [[(1)]], which layers include the quantum well structure [[(11)]],

c) partially removing the semiconductor layers, [[and]]

d) epitaxially growing the pump radiation source [[(20)]] in the region uncovered by the removal in step c) so that the pump radiation source [[(20)]] adjoins the quantum well structure [[(11)]], and

e) forming ~~wherein~~ a recess [[(10)]] for introducing the pump radiation [[(2)]] into the quantum well structure, the recess being located ~~(11) is formed~~ between the pump radiation source [[(20)]] and the quantum well structure [[(11)]],

wherein the pump radiation source is a pump laser comprising a resonator, and

wherein the quantum well structure is arranged within the resonator of the pump radiation source.

20. (Currently Amended) The method as claimed in claim 19, wherein [[in]] step d) further comprises growing semiconductor layers ~~are grown in order~~ to form the pump radiation source [[(20)]], these semiconductor layers in a grow-in region [[(19)]], being at least partially ~~growing~~ grown together in [[the]] a lateral direction with the quantum well structure [[(11)]], and wherein step e) further comprises forming the recess ~~(10) is formed~~ by at least partial removal of the grow-in region [[(19)]].

21. (Currently Amended) The method as claimed in claim 19, wherein the recess [[(10)]] is formed by etching~~, in particular, wet chemical or dry chemical etching~~.

22. (Currently Amended) The method as claimed in claim 19, wherein the recess [[(10)]] is ~~designed~~ in a trench form~~, in particular as an etched trench~~.

23. (Currently Amended) The method as claimed in claim 19, wherein the recess [[(10)]] is filled with a material which transmits the pump radiation.

24. (Currently Amended) The method as claimed in claim 23, wherein the recess [[(10)]] is filled with a silicone or a semiconductor material.

25. (Currently Amended) A method for fabricating an optically pumped semiconductor device having a semiconductor body which includes a surface-emitting quantum well structure [[(11)]] and at least one pump radiation source [[(20)]] which generates pump radiation [[(2)]] for optically pumping the quantum well structure [[(11)]], the pump radiation source [[(2)]] and the quantum well structure [[(11)]] being monolithically integrated, the method comprising the steps of:

a) providing a substrate [[(1)]],

b) epitaxially growing a plurality of semiconductor layers ~~on to~~ onto the substrate [[(1)]], which semiconductor layers include the pump radiation source [[(20)]],

c) forming a window in the plurality of semiconductor layers for the quantum well structure, ~~(11), and~~

d) epitaxially growing the quantum well structure [[(11)]] in the window so that the pump radiation source [[(20)]] adjoins the quantum well structure [[(11)]], and

e) forming ~~wherein~~ a recess [[(10)]] for introducing the pump radiation [[(2)]] into the quantum well structure, the recess being located ~~(11) is formed~~ between the pump radiation source [[(20)]] and the quantum well structure [[(11)]],

wherein the pump radiation source is a pump laser comprising a resonator, and

wherein the quantum well structure is arranged within the resonator of the pump radiation source.

26. (Currently Amended) The method as claimed in claim 25, wherein [[in]] step d) further comprises growing semiconductor layers ~~are grown in order~~ to form the quantum well structure [[(11)]], these semiconductor layers in a grow-in region, being at least partially ~~growing~~ grown together in [[the]] a lateral direction with [[the]] a layer sequence of the pump radiation source [[(20)]], and wherein step e) further comprises forming the recess ~~(10) is formed~~ by at least partial removal of the grow-in region [[(19)]].

27. (Currently Amended) The method as claimed in claim 25, wherein the recess [[(10)]] is formed by etching~~, in particular, wet chemical or dry chemical etching~~.

28. (Currently Amended) The method as claimed in claim 25, wherein the recess [[(10)]] is ~~designed~~ in the form of a trench~~, in particular as an etched trench~~.

29. (Currently Amended) The method as claimed in claim 25, wherein the recess [[(10)]] is filled with a material which transmits the pump radiation.

30. (Currently Amended) The method as claimed in claim 29, the recess [[(10)]] is filled with a silicone or a semiconductor material.

31. (New) The semiconductor device as claimed in claim 3, wherein at least one of the first and the second side faces includes an angle equal to a Brewster angle with a main direction of emission of the pump radiation source.

32. (New) The semiconductor device as claimed in claim 1, wherein the pump radiation source comprises an edge-emitting semiconductor laser, and wherein the semiconductor body has outer side faces forming resonator mirrors.